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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46320
	:	
Gabriel MONTERO	:	Confirmation Number: 1061
	:	
Application No.: 10/026,385	:	Group Art Unit: 2142
	:	
Filed: December 21, 2001	:	Examiner: M. Meucci
	:	
For:		DYNAMIC PARTITIONING OF MESSAGE SYSTEM TOPICS

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed March 28, 2006, and in response to the Examiner reopening prosecution in the Office Action dated April 12, 2007, wherein Appellant appeals from the Examiner's rejection of claims 1-9.

**I. REAL PARTY IN INTEREST**

This application is assigned to IBM Corporation by assignment recorded on December 21, 2001, at Reel 012408, Frame 0202.

**II. RELATED APPEALS AND INTERFERENCES**

Appellant is unaware of any related appeals and interferences.

### **III. STATUS OF CLAIMS**

Claims 1-9 are pending in this Application and have been four-times rejected. It is from the multiple rejections of claims 1-9 that this Appeal is taken.

### **IV. STATUS OF AMENDMENTS**

The claims have not been amended subsequent to the imposition of the Fourth Office Action dated April 12, 2007 (hereinafter the Fourth Office Action).

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claims 1, 6, and 8-9 are respectively directed to a messaging system, a dynamic topic partitioning system, message system servicing method, and machine readable storage for dynamically partitioning topics into subtopics. Referring to Fig. 1 and pages 7 and 8 of Appellant's disclosure, a message publisher 102 can post messages to a selected topic in a message server 115 in a messaging system, and each subscriber 104 can receive messages from the message server 115 based upon those message topics for which the subscribers 104 have subscribed. A dynamic topic partitioning system 120 can be provided to intercept requests from publishers 102 to post messages to a selected topic and partition the selected topic into one or more subtopics. Additionally, the dynamic topic partitioning system 120 can distribute messages for the selected topic to individual ones of the subtopics.

Referring to page 9 and Fig. 2, individual ones of the subscribers 104 can retrieve messages 202 posted to the selected topic 210 in the messaging system. Each attempt to retrieve a message 202 can be intercepted by the dynamic topic partitioning system 120, and upon intercepting the message 202, the dynamic topic partitioning system 120 can determine whether

a subtopic 220 has been created for the particular subscriber 104 to the selected topic 210. If a subtopic 220 has been created, the message 202 can be retrieved therefrom within its own thread. Otherwise, the message can be retrieved directly from the selected topic 210 using a single thread. By partitioning the selected topic 210 into multiple subtopics 220, however, multiple individual threads can be allocated for each subscriber 104 retrieving messages 202 from the selected topic 210.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claim 9 was rejected under the second paragraph of 35 U.S.C. § 112;
2. Claims 1, 5, and 8-9 were rejected under 35 U.S.C. § 102 for anticipation based upon Horowitz et al., U.S. Patent No. 6,236,987 (hereinafter Horowitz);
3. Claim 2 was rejected under 35 U.S.C. § 103 for obviousness based upon Horowitz in view of Najmi, U.S. Patent No. 6,753,889;
4. Claims 3 and 4 were rejected under 35 U.S.C. § 103 for obviousness based upon Horowitz in view of Fujisawa, U.S. Patent No. 6,947,949; and
5. Claims 6 and 7 were rejected under 35 U.S.C. § 103 for obviousness based upon Najmi in view of Horowitz.

## **VII. ARGUMENT**

### **THE REJECTION OF CLAIM 9 UNDER THE SECOND PARAGRAPH OF 35 U.S.C. § 112**

For convenience of the Honorable Board in addressing the rejections, claim 9 stands or falls alone.

On page 3 of the Fourth Office Action, the Examiner asserted that there is insufficient antecedent basis for "the limitation 'the machine' in line 3" of claim 9. In response, Appellant respectfully submits that the Examiner has failed to establish a prima facie case of indefiniteness.

As stated in Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings,<sup>1</sup> "[o]nly when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite." The Examiner, however, has not established an interpretation of the claim in light of the specification or an interpretation of the claim as interpreted by one of ordinary skill in the art. Moreover, the Examiner has failed to set forth any analysis as to why the limitation(s) in the claim does not reasonably define the invention.

Line 1 of claim 9 recites "[a] machine readable storage." Thus, it is readily apparent that "the machine" recited in line 3 of claim 9 refers the machine recited in line 1 that performs that machine reading. Appellant's position is that one having ordinary skill in the art would have no difficulty understanding the scope of claim 9, particularly when reasonably interpreted in light of the written description of the specification.<sup>2</sup> Therefore, for the reasons stated above, Appellant respectfully submits that the imposed rejection of claim 9 under the second paragraph of 35 U.S.C. § 112 is not viable.

**THE REJECTION OF CLAIMS 1, 5, AND 8-9 UNDER 35 U.S.C. § 102 FOR ANTICIPATION  
BASED UPON HOROWITZ**

For convenience of the Honorable Board in addressing the rejections, claims 5 and 8-9

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<sup>1</sup> 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004).

<sup>2</sup> In re Okuzawa, 537 F.2d 545, 190 USPQ 464 (CCPA 1976); In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

stand or fall together with independent claim 1.

The factual determination of anticipation under 35 U.S.C. § 102 requires the identical disclosure, either explicitly or inherently, of each element of a claimed invention in a single reference.<sup>3</sup> As part of this analysis, the Examiner must (a) identify the elements of the claims, (b) determine the meaning of the elements in light of the specification and prosecution history, and (c) identify corresponding elements disclosed in the allegedly anticipating reference.<sup>4</sup> This burden has not been met.

At the outset, Appellant notes that the Examiner has failed to set forth a claim construction for many of the claimed limitations. For example, with regard to independent claim 1, the Examiner has not set forth a claim construction for the claimed terms of (i) "messaging system," (ii) "message server," and (iii) "messages." The issue of claim construction analysis was revisited by the Federal Circuit in Ferguson Beauregard/Logic Controls et al. v. Mega Systems, LLC et al.<sup>5</sup> As stated by the Court in Ferguson:

We begin our claim construction analysis with the words of the claim. [cite omitted] "In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to 'particularly point [ ] out and distinctly claim [ ] the subject matter which the patentee regards as his invention.' 35 U.S.C. § 112, ¶ 2." [cite omitted] In the absence of an express intent to impart a novel meaning to the claim terms, the words take on the full breadth of the ordinary and customary meanings attributed to them by those of ordinary skill in the art. [cite omitted] The ordinary and customary meaning of a claim term may be determined by reviewing a variety of sources. Some of these sources include the claims themselves, [cite omitted]; dictionaries and treatises, [cite omitted]; and the written description, the drawings, and the prosecution history [cite omitted].

Referring to the term "messaging system," this term implies a system that is involved with messages and/or messaging. Similarly, a "message server" implies a server that is involved with

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<sup>3</sup> In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

<sup>4</sup> Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co., *supra*.

<sup>5</sup> 350 F.3d, 1327, 69 USPQ2d 1001 (Fed. Cir. 2003).

messages and/or messaging. The term "server" also has a particular meaning associated with it. Specifically, a server is simply not just a computer. Instead, a server is a computer system that is attached to one or more other computer systems, and upon receiving requests from these other computer systems, the server "serves" information to these other computer systems based upon the received requests. Likewise, a "message" is simply not just a bundle of information. Instead, a message implies both a sender of the message and a recipient of the message in addition to the information contained within the message.

Referring to the Examiner's cited reference of Horowitz, a textual search of Horowitz yields not even a single reference to either of the terms "message" and "messaging." Notwithstanding that Horowitz is silent as to messages and messaging, the Examiner did not clearly explain how Horowitz teaches the above-identified limitations. Instead, the Examiner's entire analysis with regard to claim 1, which is found in the paragraph spanning pages 3 and 4 of the Fourth Office Action, is reproduced below:

Regarding claim 1, Horowitz teaches: at least one message server (items 130 and 140 of Fig. 1); a plurality of topics stored in said at least one message server (lines 20-24 of column 7); a plurality of subtopics associated with at least one of said topics in said at least one message server (lines 20-24 of column 7); and, a dynamic topic partitioning system configured to partition said at least one of said topics into said subtopics (line 55 of column 6 through line 2 of column 7 and lines 27-33 of column 7), wherein messages are posted to and retrieved from individual ones of said plurality of topics (lines 51-54 of column 6).

At the outset, Appellant disagrees with the Examiner's assertion that knowledge base 130 and document collection 140 of Horowitz identically disclosed the claimed "at least one server." As described in column 8, lines 23-24 of Horowitz, "[t]he knowledge base is a persistent data store that system 100 uses to store topic information," and column 8, line 62 describes "[t]he document collection 140 [as] a set of documents." Absent from these teachings, however, are

the above-described elements which are associated with a message server. Thus, the Examiner has failed to establish Horowitz teaches the claimed message server.

Regarding the claimed limitation of "messages are posted to and retrieved from individual ones of said plurality of topics," the Examiner cited to column 6, lines 51-54 of Horowitz, which is reproduced below:

The most favorably rated subtopic combination is selected as the subtopic arrangement for the selected topic, and is displayed to the user.

Not only is this passage is silent as to "messages," this passage only refers to selecting "[t]he most favorably rated subtopic combination" to display to the user. The claimed limitation, however, recites that "messages are posted to and retrieved from" (emphasis added). Thus, the claimed invention recites a two-way flow of messages. On the contrary, the Examiner's cited passage only refers to a one-way flow of information. Thus, the Examiner has further failed to establish that Horowitz teaches all of the claimed limitations.

Independent claims 8 and 9 also refer to a "message system" and "messages" as well as "message requests." Therefore, Appellant incorporates herein, as also applying to independent claims 8 and 9, the arguments previously presented with regard to independent claim 1. Therefore, for the reasons stated above, Appellant respectfully submits that the limitations, as recited in claims 1, 5, and 8-9, distinguish the claimed invention over Horowitz.



**THE REJECTION OF CLAIM 2 UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON  
HOROWITZ IN VIEW OF NAJMI**

For convenience of the Honorable Board in addressing the rejections, claim 2 stands or falls together with independent claim 1.

Claim 2 depends ultimately from independent claim 1, and Appellant incorporates herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for anticipation based upon Horowitz. The secondary reference to Najmi does not cure the argued deficiencies of Horowitz. Accordingly, the proposed combination of references would not yield the claimed invention. Appellant, therefore, respectfully submits that the imposed rejection of claim 2 under 35 U.S.C. § 103 for obviousness based upon Horowitz in view of Najmi is not viable.

**THE REJECTION OF CLAIMS 3 AND 4 UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED  
UPON HOROWITZ IN VIEW OF FUJISAWA**

For convenience of the Honorable Board in addressing the rejections, claim 4 stands or falls together with dependent claim 3.

The present application has a filing date of December 12, 2001. The Examiner's secondary reference of Fujisawa has a U.S. filing date of March 22, 2002, and a Foreign Application Priority date of March 26, 2001. Since Fujisawa was not "known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent," then Fujisawa does not qualify as prior art under section (a)

of 35 U.S.C. § 102. Moreover, Fujisawa was not "patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States," and thus, Fujisawa does not qualify as prior art under section (b) of 35 U.S.C. § 102.

Section (e) of 35 U.S.C. § 102(e) is explicitly limited to certain references "filed in the United States before the invention thereof by applicant."<sup>6</sup> However, since Fujisawa was filed in the United States after the filing of the present application, Fujisawa does not qualify as prior art under section (e) of 35 U.S.C. § 102. Therefore, Fujisawa does not qualify as prior art.

**THE REJECTION OF CLAIMS 6 AND 7 UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED  
UPON NAJMI IN VIEW OF HOROWITZ**

For convenience of the Honorable Board in addressing the rejections, claim 7 stands or falls together with independent claim 6.

Independent claim 6 recites, in part, "a message interface through which message publishers can post messages to selected topics." To teach this limitation, the Examiner cited column 10, lines 9-11 of Najmi. For ease of reference, column 10, lines 7-13 is reproduced below:

Once the JMS message has been appropriately reformatted, the JMS message is sent to a delivery manager at 724 and at 726 the workflow manager reviews the JMS message for completeness and any missing information is filled in by the workflow-manager. At 728, the delivery manager posts the JMS message to an appropriate JMS topic as well as to the administrator at 730.

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<sup>6</sup> See M.P.E.P. § 2136.03.

Despite the claimed limitations reciting that a message publisher posts messages to selected topics via the message interface, the teachings of Najmi are directed to the delivery manager posting "the JMS message to an appropriate JMS topic." The Examiner has not established that the delivery manager taught by Najmi is comparable to the claimed message publisher. Thus, the Examiner has failed to establish that Najmi teaches this limitation for which the Examiner is relying upon Najmi to teach.

Independent claim 6 further recites, in part, the following:

a request processor in which requests to post and retrieve messages to and from individual ones of said selected topics can be converted into message system requests to respectively post and retrieve messages to and from said associated subtopics in said subtopic store, said request processor processing each of said converted message system requests in individual threads of execution.

On page 7 of the Fourth Office Action, the Examiner asserted that entire above-reproduced limitation is disclosed in column 3, line 53 through column 4, line 2. For ease of reference, this passage is reproduced below:

The B2B messenger is coupled to a Java Message Service API (referred to as JMS) that provides an interface between the B2B messenger and the various business components included in the J2EE based enterprise computer system. In the described embodiment, the B2B messenger subscribes to a Java Messenger Server (JMS) topic based upon an associated subscription rule. By subscribes, it is meant that the B2B messenger "listens" to a particular JMS topic that is identified with a particular subscription rule. When the JMS topic points to a particular native message (referred to as a JMS message), a subscription manager included in the messenger receives the JMS message and directs a message adapter to modify the JMS message into a format consistent with a receiving partner based upon both the corresponding subscription rule and a corresponding document template, or B2B schema.

Completely absent from this passage, however, is a discussion of topic and subtopics or how requests to post/retrieve messages to/from the selected topics are converted to requests to post/retrieve messages to/from associated subtopics in the subtopic store. Also absent from this passage is the claimed "said request processor processing each of said converted message system requests in individual threads of execution."

Curiously, the Examiner then asserts "Najmi does not explicitly teach: a subtopic store configured to distribute messages of said selected topics within associated subtopics." Based upon this admission, Appellant is unclear how the Examiner can assert that Najmi teaches converting requests to post/retrieve messages to/from the selected topics to post/retrieve messages to/from associated subtopics in the subtopic store since the Examiner admits that Najmi is silent as to a subtopic store (and presumably subtopics).

With regard to the secondary reference of Horowitz, the Examiner asserted the following on pages 7 and 8 of the Fourth Office Action.

However, Horowitz discloses: "An information retrieval system in accordance with the present invention includes a document collection having a plurality of documents, each document associated with at least one topic, and a knowledge base of topics that defines topic-subtopic relationships between various topics," (lines 20-24 of column 7). It would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to have a subtopic store configured to distribute messages of said selected topics within associated subtopics. "A query analysis module receives a current query and processes the current query against a document collection to select set of documents from the document collection that satisfy the query. A dynamic content module determines automatically or in response to user selection generates supertopic, subtopic, perspective, and theme topic arrangements," (lines 27-33 of column 7 in Horowitz). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a subtopic store configured to distribute messages of said selected topics within associated subtopics in the system as taught by Najmi.

At the outset, Appellant is unclear as to the Examiner's asserted particular benefit underlying the rationale for modifying Najmi in view of Horowitz. The Examiner's cited passages in Horowitz describe how the system of Horowitz works but do not appear to describe a particular benefit that one having ordinary skill in the art would enjoy a reasonable expectation of success in obtaining based upon the Examiner's proposed modification to Najmi. Moreover, as already noted above, the teachings of Horowitz are silent as to messages and/or messages, and the Examiner has failed to explain why Horowitz would be considered analogous prior art.

Notwithstanding the Examiner's unclear obviousness analysis, even if one having ordinary skill in the art were motivated to modify Najmi in view of Horowitz, the claimed invention would not result. As noted above, Najmi is silent as to several limitations for which the Examiner is relying upon Najmi to teach. Thus, Appellant respectfully submits that the Examiner's rejection of claims 6 and 7 under 35 U.S.C. § 103 for obviousness based upon Najmi in view of Horowitz is not viable.

#### Conclusion

Based upon the foregoing, Appellant respectfully submits that the Examiner's rejections under 35 U.S.C. §§ 102-103 and 112 based upon the applied prior art is not viable. Appellant, therefore, respectfully solicits the Honorable Board to reverse the Examiner's rejections under 35 U.S.C. §§ 102-103 and 112.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17, 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: July 12, 2007

Respectfully submitted,

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## **VIII. CLAIMS APPENDIX**

1. A messaging system comprising:
  - at least one message server;
  - a plurality of topics stored in said at least one message server;
  - a plurality of subtopics associated with at least one of said topics in said at least one message server; and,
  - a dynamic topic partitioning system configured to partition said at least one of said topics into said subtopics, wherein
    - messages are posted to and retrieved from individual ones of said plurality of topics.
2. The message system of claim 1, wherein said message server is Java message service (JMS) compliant.
3. The message system of claim 1, wherein said at least one message server resides in at least one process address space.
4. The message system of claim 3, wherein said at least one process address space is a Java virtual machine.
5. The message system of claim 1, further comprising a plurality of threads of execution, each said thread hosting a process for communicating a message between one of said subtopics in said at least one message server and a message subscriber.

6. A dynamic topic partitioning system comprising:

a message interface through which message publishers can post messages to selected topics, and from which message subscribers can request messages which have been published to selected topics;

a subtopic store configured to distribute messages of said selected topics within associated subtopics; and,

a request processor in which requests to post and retrieve messages to and from individual ones of said selected topics can be converted into message system requests to respectively post and retrieve messages to and from said associated subtopics in said subtopic store, said request processor processing each of said converted message system requests in individual threads of execution.

7. The dynamic topic partitioning system of claim 6, wherein said message interface comports with the Java message service (JMS) specification.

8. A message system servicing method comprising the steps of:

intercepting message requests for a selected topic from subscribers in the message system;

associating said message requests with a plurality of subtopics created for said selected topic; and,

servicing said message requests with messages in said subtopics from within separate threads of execution for each subtopic-subscriber pair.

9. A machine readable storage having stored thereon a computer program for performing message system servicing, said computer program comprising a routine set of instructions for causing the machine to perform the steps of:

intercepting message requests for a selected topic from subscribers in the message system;

associating said message requests with a plurality of subtopics created for said selected topic; and,

servicing said message requests with messages in said subtopics from within separate threads of execution for each subtopic-subscriber pair.



**IX. EVIDENCE APPENDIX**

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellant in this Appeal, and thus no evidence is attached hereto.

**X. RELATED PROCEEDINGS APPENDIX**

Since Appellant is unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.